# U.S. Department of Energy
# National Nuclear Security Administration

# Implementation Assessment
# of the
# Livermore Site Office
# Safety System Oversight Program

## Final Report

## December 2005

# Assessment Team

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## EXECUTIVE SUMMARY

Implementation of the Safety System Oversight (SSO) function at the Livermore Site Office (LSO) was reviewed by two Federal Technical Capability Agents using criteria developed by the Federal Technical Capability Panel. With a couple of minor exceptions, the program has been institutionalized in LSO documents and is being implemented. Due to the recent reassignment of systems and the need for an additional SSO engineer it is still too early to evaluate the effectiveness of LSO's implementation.

Listed below are the two Findings and two Opportunities for Improvement identified during the review:

Findings:

PGM-F-1 LSO documents do not assign responsibility for the SSO program to an existing LSO organization.

MG-F-1 For the newly hired SSO engineer, LSO did not comply with the LSO TQP SOP requirement to document whether a new employee has competence commensurate with responsibility while the employee is completing his/her TQP qualifications.

Opportunities for Improvement:

PGM-O-1 LSO documents do not assign responsibility for performing oversight of passive safety systems not on the VSS list or credited safety management programs.

OP-O-1 The requirement for an approved assessment plan for the 3 year operability assessments and the relationship of these assessments to the activities scheduled in the Operational Awareness Implementation Plan is not defined.

## INTRODUCTION

In May 2004, the Department of Energy (DOE) institutionalized the Safety System Oversight (SSO) function to monitor the performance of systems relied upon to assure safe operation of nuclear facilities and evaluate effectiveness of the Contractor's cognizant system engineer program. The SSO function, including roles and responsibilities of personnel assigned this function, are described in DOE M 426.1-1A, *Federal Technical Capability Panel Manual.* DOE M 426.1-1A also defines the knowledge, skills and abilities to be incorporated into technical qualification programs for personnel assigned the SSO function.

The objective of this review is to assess implementation of the SSO function by the Livermore Site Office (LSO). The reporting format described in DOE M 426.1-1A was used to document the review results.

## SCOPE and METHODOLOGY

The review was performed by the LSO Federal Technical Capabilities Panel (FTCP) Agent and the FTCP Agent from the Nevada Site Office. Criteria and Review Approach Documents (CRADs) developed by the FTCP were used to assess implementation of the SSO function at LSO. The CRADs are in Attachment A of this report.

The results of document reviews, interviews, and field observations are documented in the "Results" section of this report and broken out by the four CRAD functional areas: Program (PGM); Training and Qualification (TQ); Management (MG); and Oversight Performance (OP).

PGM, TQ and MG functional area assessment consisted of document review and management interviews assessing LSO action to implement the SSO functions described in DOE M 426.1-1A. The OP functional area also included the observation of a system walkdown by LSO staff.

Documents reviewed:

- NNSA/LSO Standard Operating Procedure "Technical Qualification Program", approved September 27, 2004.
- NNSA/LSO Standard Operating Procedure "Federal Safety System Oversight Program" Rev. 1, approved August 5, 2005.
- NNSA/ LSO Safety System Oversight Personnel Qualification Standard, approved May 6, 2004.
- NNSA/LSO Safety System Oversight Personnel Qualification Plan, approved September 16, 2004.
- "Initial Implementation Assessment of the Livermore Site Office Safety System Oversight Program", December 2004.
- "ES&H Operational Awareness Implementation Plan, FY2006", November 8, 2005.
- "LSO ES&H Functions, Responsibilities, and Authorities Manual" Rev. 2, (draft).

- "LSO ES&H Master Self Assessment Plan", April 11, 2005
- Performance Standards for and SSO person and supervisor
- Qualification cards, and other TQP records and reports
- "Department of Energy National Security Administration Livermore Site Office Evaluation of LLNL Configuration Management in Buildings 331, 334, 239, 251 and Radioactive and Hazardous Waste Management Facilities", March 16, 2005
- "Joint Review of Vital Safety Systems in B332", October 18, 2005
- "Evaluation of LLNL Configuration Management in B332", January 4, 2005
- LSO SSO staffing analysis (draft)
- Vital Safety System List Rev. 1 (draft)
- Appendix F of the LLNL Contract (W-7405-ENG-48 Mod M540)

Personnel interviewed include:

- SSO Personnel Supervisor
- SSO Personnel Team Leader
- Safety System Oversight Program Manager
- LSO Safety System Oversight Person
- LSO Facility Representative

**RESULTS**

Program (PGM)

The SSO function established at LSO is defined by the NNSA/LSO Standard Operating Procedure "Federal Safety System Oversight Program" (Program Plan). Revision 1 to the Program Plan was issued on August 5, 2005. The Program Plan defines LSO implementation of a program to oversee the contractor's system engineering program as required by DOE Order 420.1A, "Facility Safety". Section 3.1.6 of the Program Plan describes inclusion of SSO qualifications as part of the LSO Technical Qualification Program (TQP). The LSO TQP is implemented through the NNSA/LSO Standard Operating Procedure "Technical Qualification Program".

The roles, responsibilities and authorities of personnel assigned SSO responsibilities are described in section 2 of the Program Plan. Roles, responsibilities and functions described in the Program Plan are consistent with, and duplicate, the content of DOE M 426.1-1A. The Program Plan does assign lead responsibility for the SSO Program to the Livermore Safety Operations Division. Due to a recent reorganization, LSOD no longer exists. Although the FRAM assigns specific oversight responsibilities to SSO personnel, it does not assign responsibility for the SSO Program. **(Finding PGM-F-1)**

The Initial Implementation Assessment of the Livermore Site Office Safety System Oversight Program (Initial Assessment) identified three opportunities for improvement (OFI) in the program plan listed below:

- Define the system for maintaining configuration on vital safety systems list
- Clarify responsibilities for follow-up on deficiencies identified by SSO personnel.

- Add more specificity regarding the level of oversight to be performed.

The program plan was modified to address all three of these OFIs.

Another OFI in the Initial Assessment was to modify Operational Awareness Plans to specify SSO oversight activities. A FY06 Operational Awareness Plan was issued that specifies the planned oversight activities for SSO engineers.

The Program Plan assigns responsibility for configuration management of the VSS list to the contractor, with LSO concurrence required for any changes. Revision 1 to that list is currently being reviewed by LSO. DOE 420.1A "Facility Safety" states "This Program shall be applied to active safety class and safety significant structures, systems and components (SSCs), as defined in the nuclear facility's DOE-approved safety basis and other active systems that perform an important defense-in-depth function for the protection of the public, workers, or the environment within the context of the safety basis, as designated by the facility line management." In addition to the active systems meeting the requirement above, Revision 1 of the VSS list captures passive systems designated as safety class (SC) or safety significant (SS) for some facilities but not for others. No DOE Order or Standard defines passive and active and there is some disagreement over the definition of passive and active. Oversight of passive SC and SS systems, as well as credited safety management programs, is important. However, LSO documents do not specifically assign responsibility for their oversight. **(OFI PGM-O-1)**

NNSA/ LSO Safety System Oversight Personnel Qualification Standard and NNSA/LSO Safety System Oversight Personnel Qualification Plan describe LSO processes to qualify SSO candidates and evaluate their level of knowledge. The process requires candidates to complete a separate qualification card developed for each assigned safety system. Level of knowledge regarding qualification card competencies is confirmed by a qualifying official through practical demonstration or written or oral examinations. This process meets the expectations of DOE M 426.1-1A.

The Initial Assessment identified an OFI regarding modification of SSO personnel performance plans to specifically include their SSO duties. This has been completed, and with the movement to full time SSO engineers, their performance plans are centered on their SSO duties.

A staffing analysis for SSO personnel, based on Revision 1 to the VSS list, was completed in December 2005 and is being reviewed by management. The analysis indicates the need for 3.3 FTE for the SSO program. Currently only 2.3 FTEs are onboard, but and additional full time engineer for the SSO program is being recruited.

Training and Qualification (TQ)

Section 2.3 of the Program Plan identifies those supervisors with responsibilities for SSO personnel need to qualify as Senior Technical Safety Managers (STSM). The supervisors for the SSO personnel are qualified, or in the process of qualifying, as STSMs. Some

supervisory duties for some SSO personnel are performed by a Team Lead. This Team Lead is qualifying under the STSM standard.

All assigned LSO SSO personnel have qualified or are in the process of qualifying under the General Technical Base standard and a functional area qualification standard. Due to the recent reassignment of systems, LSO's two full time SSO personnel have not qualified on their assigned systems. The criticality safety SME is expected to complete his SSO qualifications for the criticality alarm system by the end of January 2006. The qualification due date for the other two engineers is April 30, 2007, however they expect to be qualified by the end of the fiscal year.

The SSO qualification processes are in accordance with the NNSA/LSO Standard Operating Procedure "Technical Qualification Program" (TQP SOP). SSO qualification to the NNSA/ LSO Safety System Oversight Personnel Qualification Standard is guided by the NNSA/LSO Safety System Oversight Personnel Qualification Plan. The standard has four competencies that must be met once for all systems assigned and five competencies that must be met for each system assigned. Demonstration of competency is through oral or written examination or practical demonstration. Qualification Officials are LSO Subject Matter Experts, Facility Representatives, and Nuclear Safety Analysts depending on the competency.

Management (MG)

In October 2005, LSO reassigned responsibilities for most of the vital safety systems (VSS). LSO made the decision to move away from the concept of part time SSO assignments, to the use of full time SSO personnel. All the systems in the waste management facilities were assigned to one engineer. And all the systems in the Superblock, with the exception of the criticality alarm system, were assigned to another engineer, who had been recently hired. The criticality alarm system remains assigned to the criticality safety subject matter expert on a part time basis. New qualification cards and qualification due dates were assigned at this time.

Personnel are notified by their supervisor of any changes in their assignment due to changes in the VSS list, and are then notified of any changes in their qualification requirements through the process identified in the TQP SOP. Section 3.3 of the LSO TQP Standard Operating Procedure requires that Assistant Manager will determine and document the extent to which, or whether, an employee new to the TQP has competence commensurate with their responsibilities. This was not done for the SSO engineer who came on board in August. **(Finding MG-F-1)**

Progress of personnel towards meeting their qualification requirements is discussed at Technical Qualification Council (TQC) meetings (all supervisors with personnel in the TQP are members of the council). The progress of all personnel in meeting their TQP requirements is also reported in the monthly TDSEP Performance Indicator/Issues Management Report. The Assistant Manager, for whom the full time SSO engineers work, has an item in one of his performance elements regarding his staff's completion of

their TQP requirements. Additionally, the Assistant Manager indicated he gets asked frequently about the status of qualifications by the Manager and Deputy Manager.

SSO engineer's performance elements include their SSO responsibilities, and all LSO personnel in the TQP have a performance elements regarding obtaining and maintaining qualification.

In addition to this assessment, and the Initial Assessment, LSO is performing a management self assessment in preparation for an upcoming Chief of Defense Nuclear Safety review which includes a self assessment of the SSO program. The LSO Master ES&H Self Assessment Plan requires self assessment of the SSO program on a three year basis.

Oversight Performance (OP)

The Lawrence Livermore National Laboratory (LLNL) Systems Engineer Program is in its infancy. LSO oversight of the LLNL program has determined that it is not yet adequately formalized. DOE 420.1A was added to the LLNL contract in August, 2004. LLNL submitted an implementation plan for the systems engineering requirements of DOE 420.1A on February 28, 2005. The plan was unacceptable to LSO and a revised plan has not yet been submitted. LSO has had frequent interactions with LLNL staff and management to identify those actions needed for an acceptable implementation plan. Meanwhile, LSO SSO engineers have had frequent interactions with the LLNL system engineers to oversee the implementation of the system engineering program at the facility level. One of the performance measures in the contract performance plan (Appendix F) is to improve the institutional contractor system engineer program within the NNSA approved schedules.

In response to a DNFSB letter, LSO completed reviews of all vital safety systems. The lines of inquiry focused on four specific elements of configuration management (Authorization Basis, Maintenance and Work Packages, Surveillance and Testing, and System Operations) and applied to each VSS. These reviews were completed in January for B332, and in March for the remainder of the nuclear facilities.

Based on the result of the reviews above, it was decided that comprehensive Phase II assessments for all vital safety systems in B332 were necessary. These reviews were performed jointly by LSO and LLNL and completed in October of 2005.

The program plan requires operability reviews to be conducted by LSO every 3 years. The operability reviews are being performed using the generic Phase II CRADs. The first operability review (other than those discussed above) is in progress; however, the review plan has not been approved. The FY06 Operational Awareness Implementation Plan (OAIP) defines the functional area reviews and surveillances planned to be performed by the SSO engineers. The relationship between the operability reviews required by the program plan and the surveillances scheduled in the OAIP was not clear. The Program Plan did not state whether a review plan for the operability assessments required approval, or if it was a surveillance which normally does not have an approved

assessment plan. **(OFI OP-O-1)** Surveillances and assessments are documented in the Functional Information for Safety, Health, and Environment system (FISHE). Several FISHE reports were reviewed that indicated that SSO engineers were performing oversight, and that oversight was finding discrepancies. Because the oversight requirements are new, this assessment could only reach the conclusion that oversight was being conducted, but not if the requirements of the Program Plan and OAIP were being met or if the program was providing effective oversight of safety systems.

Interviews with SSO engineers and Facility Representatives and review of FISHE reports indicate frequent interactions between the SSO engineers, Facility Representatives, and safety analysts. The SSO engineers understood their stop work authority.

The lead SSO engineer is notified of all occurrence reports. When an occurrence report involves a vital safety system, the SSO engineer interacts with the Facility Representative as necessary to understand and resolve any issues. Occurrence reports will also be reviewed as part of the operability assessments.

The SSO engineers review the priority list of vital safety system maintenance and replacement, and give input to the contractor system engineers. For example, the SSO engineer recommended to the contractor system engineer that the replacement of a component on a glovebox exhaust system be moved higher on the priority list. After discussion with contractor management, the priority was increased.

The SSO engineers primarily raise issues through their team lead and assistant manager. This has been effective in getting the proper management attention, for example, the lead SSO engineer raised concerns about the institutional requirements for the LLNL system engineer program that has lead to management discussions on the issues between LSO and LLNL.

## CONCLUSIONS and RECOMMENDATIONS

LSO has implemented a SSO program. With a couple of minor exceptions, the program has been institutionalized in LSO documents and is being implemented. Due to the recent reassignment of systems and the need for an additional SSO engineer it is still too early to evaluate the effectiveness of LSO's implementation. The two findings below should be corrected and two opportunities for improvement should be evaluated to ensure effective implementation of the program.

Findings:

PGM-F-1 LSO documents do not assign responsibility for the SSO program to an existing LSO organization.

MG-F-1 For the newly hired SSO engineer, LSO did not comply with the LSO TQP SOP requirement to document whether a new employee has competence

commensurate with responsibility while the employee is completing his/her TQP qualifications.

Opportunities for Improvement:

PGM-O-1 LSO documents do not assign responsibility for performing oversight of passive safety systems not on the VSS list or credited safety management programs.

OP-O-1 The requirement for an approved assessment plan for the 3 year operability assessments and the relationship of these assessments to the activities scheduled in the Operational Awareness Implementation Plan is not defined.

ATTACHMENT: Safety System Oversight (SSO) Program Implementation Assessment Criteria Review and Approach Documents (CRADs)

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# Attachment A

# Criteria and Review Approach Documents (CRADs)

# Safety System Oversight (SSO) Program
# Implementation Assessment
# Criteria and Review Approach Documents (CRADs)

**Revision 0**

## PROGRAM (PGM)

OBJECTIVE

**PGM.1** An effective SSO Program is established by the Field Element Manager to apply engineering expertise to maintain safety system configuration and to assess system condition and effectiveness of safety management program implementation.

Criteria

PGM.1.1 The SSO Qualification Program is part of the Technical Qualification Program (DOE M 426.1-1A, Chapter III, Section 1, 2.b (1)).

PGM.1.2 The SSO Program establishes appropriate training, qualification, and performance requirements for SSO personnel and the supervisors are held accountable for achieving them (DOE M 426.1-1A, Chapter III, Section 1, 2.b (2)).

PGM.1.3 The safety systems and safety management programs included in the SSO Program align with those systems and programs identified in the applicable Documented Safety Analysis (DOE M 426.1-1A, Chapter III, Section 1, 4.c).

PGM.1.4 Safety system oversight requirements are defined and implemented, for example, functions, responsibilities, and authorities of personnel assigned to perform safety system oversight and their interface/support of Facility Representatives are clearly defined, and SSO staffing needs are identified and there is a plan or process to ensure future staffing needs are met and maintained (DOE M 426.1-1A, Chapter III, Section 1, 2.b (3) & (4)).

PGM.1.5 Affected DOE and contractor managers understand the SSO role and relationship to Facility Representatives and the contractor's cognizant System Engineers, and provide the necessary access and support (DOE M 426.1-1A, Chapter III, Section 1, 3.d).

PGM.1.6 Qualifying Officials are assigned to sign site-specific Qualification Cards (DOE M 426.1-1A, Chapter III, Section 1, 2.b (6)).

PGM.1.7 The SSO Program contains features to verify that SSO candidates possess the required level of knowledge and/or skills to perform assessments and investigations to confirm performance of safety systems in meeting established safety and mission requirements (DOE M 426.1-1A, Chapter III, Section 1, 2.b (5)).

Approach

Record Review: Review documentation (e.g., site technical qualification program documents, SSO Program Plan, SSO Program procedures, qualification cards and/or standards, internal memorandums, Documented Safety Analyses, etc.) which establish the SSO Program and describe its implementation to determine that the program is complete and comprehensive.

Interviews: Interview management personnel with responsibilities for implementing and executing the SSO program to determine if they are familiar with the role of SSO personnel relative to the Facility Representatives and the contractor's cognizant system engineers, if they provide adequate resources for training, qualification, future staffing, and performance of SSO personnel, and if they appropriately qualified to perform their assigned role in the SSO program. Interview qualifying officials to determine if they are familiar with their role and responsibility, they are currently qualified, and they are performing their assigned role.

Field Observation: Evaluate any process used by or directed by the Field Element Manager to determine the effectiveness of SSO Program Performance.

## TRAINING AND QUALIFICATION (TQ)

OBJECTIVE

**TQ.1** SSO personnel and supervisors with responsibilities for SSO personnel are appropriately trained and qualified, or are in the process of achieving qualification.

Criteria

TQ.1.1 Supervisors with responsibilities for SSO personnel maintain Senior Technical Safety Manager (STSM) qualification (DOE M 426.1-1A, Chapter III, Section 1, 2.c (1)).

TQ.1.2 Site-specific qualification standards and cards have been developed and a documented process is implemented to assure that SSO candidates meet, at a minimum, the SSO knowledge, skills, and abilities specified in the *Federal Technical Capability Manual* DDOE 426.1-1A, Chapter III, Section 1, 5.a & 5.b)

TQ.1.3 All SSO personnel have completed or are completing the General Technical Base Qualification Standard (DOE-STD-1146-2001) and one or more Functional Area Qualification Standard(s) in a technical area linked to their individual job descriptions (DOE M 426.1-1A, Chapter III, Section 1, 4.a).

TQ.1.4 All SSO personnel have completed or are completing the site-specific qualification standard associated with assigned safety systems (DOE M 426.1-1A, Chapter III, Section 1, 4.a).

TQ.1.5 SSO Supervisors have established methods to assign initial qualification dates, track progress toward qualification, and ensure retraining/requalification occurs as required for each SSO candidate in the qualification process (DOE M 426.1-1A, Chapter III, Section 1, 2.c (4) through (6)).

Approach

Record Review: Review qualification records to establish that supervisors and managers of SSO are qualified as an STSM and that SSO personnel are trained and qualified. Review qualification and requalification schedules, staffing plans, training plans, travel funding, etc. to determine that sufficient resources are provided for training, retraining, qualifying, and requalifying SSO personnel.

Interviews: Interview supervisors, training coordinators, SSO personnel, and budget personnel to establish that training and qualification plans and schedules are being executed as planned and that sufficient resources are provided to meet the schedules.

Field Observation: Observe activities associated with the qualification process, such as qualification boards, exams, walk throughs to determine that the training and qualification process is implemented and functioning effectively.

**MANAGEMENT (MG)**

OBJECTIVE

**MG.1** SSO Supervisors effectively perform their SSO program responsibilities.

Criteria

MG.1.1 Site-specific SSO qualification standards and cards are developed (DOE M 426.1-1A, Chapter III, Section 1, 2.c (2)).

MG.1.2 Supervisors have identified and approved SSO candidate selection (DOE M 426.1-1A, Chapter III, Section 1, 2.c (3)).

MG.1.3 Supervisors of SSO personnel have established SSO personnel qualification schedules and are tracking progress (DOE M 426.1-1A, Chapter III, Section 1, 2.c (4)).

MG.1.4 Supervisors facilitate SSO qualification (e.g., ensure sufficient time and training are provided to complete qualification tasks) (DOE M 426.1-1A, Chapter III, Section 1, 2.c (5)).

MG.1.5 Supervisors ensure SSO personnel are trained and qualified to perform assigned duties (DOE M 426.1-1A, Chapter III, Section 1, 2.c (6)).

MG.1.6 SSO responsibilities are included and measured in Individual Performance Plans (DOE M 426.1-1A, Chapter III, Section 1, 2.c (7)).

MG.1.7 Ensure SSO qualifications are maintained current by training and assignments planned in Individual Development Plans (DOE M 426.1-1A, Chapter III, Section 1, 2.c (8)).

MG.1.8 SSO Supervisors periodically evaluate program effectiveness and implement corrective actions in a timely manner (DOE M 426.1-1A, Chapter III, Section 1, 2.c (9)).

Approach

Record Review: Review qualification cards, Individual Performance Plans, and other SSO program documents and procedures to establish that managers and supervisors are effectively performing their responsibilities as defined in the SSO program. Review other documentation used by supervisors to establish SSO program effectiveness and implementation of corrective actions.

Interviews: Interview supervisors and managers to establish that they are familiar with their assigned roles, they perform their assigned duties, monitor the effectiveness of the SSO program and ensure any identified corrective actions are implemented.

Field Observation: Observe any activities associated with SSO program effectiveness evaluations and/or corrective action implementation.

## OVERSIGHT PERFORMANCE (OP)

OBJECTIVE

**OP.1** Collectively, SSO personnel provide oversight of the Contractors' System Engineer Program.

Criteria

OP.1.1 Oversight performed by SSO personnel establishes that the contractor System Engineer Program is effectively implemented with goals, objectives, and performance measures (DOE M 426.1-1A, Chapter III, Section 1, 2.a (1)).

OP.1.2 SSO personnel maintain communication with the contractor's cognizant System Engineer (DOE M 426.1-1A, Chapter III, Section 1, 2.a (1)).

OP.1.3 SSO personnel monitor performance of the contractor's cognizant System Engineer Program (DOE M 426.1-1A, Chapter III, Section 1, 2.a (1)).

OP.1.4 SSO personnel attend selected contractor meetings with Facility Representatives and contractor personnel responsible for system performance (e.g., cognizant System Engineers, design authorities, and program managers) (DOE M 426.1-1A, Chapter III, Section 1, 2.a (3)).

Approach

Record Review: Review oversight documentation, such as SSO assessment reports, SSO walk throughs, correspondence, SSO activity records or logs, corrective action documents, etc. to establish that SSO personnel are overseeing implementation and execution of the contractor system engineer program. Review the contractor's system engineer program to determine whether there are any program weaknesses or deficiencies that have not been identified by SSO personnel.

Interviews: Interview SSO personnel, Facility Representatives, and contractor system engineers to establish the level of interface between SSO personnel and the contractor's cognizant system engineers.

Field Observation: Observe any oversight activities of the contractor's system engineer program performed by SSO personnel.

OBJECTIVE

**OP.2** SSO personnel are knowledgeable and familiar with assigned safety systems and/or programs.

Criteria

OP.2.1 A qualified SSO is, in fact, knowledgeable of the system status, performance, maintenance, operations, design, and vulnerabilities of their assigned systems or programs. This is evidenced by:

- OP.2.1.1 SSO personnel regularly and routinely review periodic system health/status reports (DOE M 426.1-1A, Chapter III, Section 1, 2.a (2)).
- OP.2.1.2 SSO personnel review test results, investigation reports, root cause analyses, etc (DOE M 426.1-1A, Chapter III, Section 1, 2.a (2)).
- OP.2.1.3 SSO personnel interface with external organizations that can provide insights on performance (DOE M 426.1-1A, Chapter III, Section 1, 2.a (2)).
- OP.2.1.4 SSO personnel perform assessments, periodic evaluations of equipment configuration and material condition and safety management program implementation (DOE M 426.1-1A, Chapter III, Section 1, 2.a (3)).
- OP.2.1.5 SSO personnel evaluate the effects of aging on system equipment and components, the adequacy of work control and change control processes, and consider the appropriateness of system maintenance and surveillance activities with respect to reliable performance of safety function(s) (DOE M 426.1-1A, Chapter III, Section 1, 2.a (3)).
- OP.2.1.6 SSO personnel identify technical issues and participate actively in the resolution of the issues.

OP.2.2 Safety systems and safety management programs have established goals, objectives, and performance measures

OP.2.3 SSO personnel perform evaluations of contractor troubleshooting, investigations, root cause evaluations, and selection and implementation of corrective actions, in conjunction with Facility Representatives (DOE M 426.1-1A, Chapter III, Section 1, 2.a (4)).

OP.2.4 SSO personnel provide support to other Federal employees, as appropriate. (DOE M 426.1-1A, Chapter III, Section 1, 2.a (5))

OP.2.5 SSO personnel assess contractor compliance with relevant DOE regulations, industry standards, contract requirements, safety basis requirements, and other system requirements (DOE M 426.1-1A, Chapter III, Section 1, 2.a (6)).

OP.2.6 SSO personnel confirm configuration documentation, procedures, and other sources of controlling information are current and accurate (DOE M 426.1-1A, Chapter III, Section 1, 2.a (7)).

OP.2.7 SSO personnel report potential or emergent hazards immediately to DOE line management and Facility Representatives (DOE M 426.1-1A, Chapter III, Section 1, 2.a (8)).

OP.2.8 SSO personnel stop tasks, if required, to prevent imminent impact to the health and safety of workers and the public, to protect the environment, or to protect the facility and equipment and immediately notify the on-duty or on-call Facility Representative (DOE M 426.1-1A, Chapter III, Section 1, 2.a (8)).

OP.2.9 SSO personnel serve, when assigned, as qualifying officials in the development or revision of Functional Area Qualification Standards, mentor assigned backups, and qualify other candidates to the Functional Area Qualifications Standards needed to achieve Safety System oversight qualification (DOE M 426.1-1A, Chapter III, Section 1, 2.a (9)).

OP.2.10 SSO personnel maintain cognizance of the appropriate funding and resources to maintain and improve safety systems (DOE M 426.1-1A, Chapter III, Section 1, 2.a (10)).

OP.2.11 Methods have been established for SSO personnel to routinely communicate system/program performance information and issues with STSMs and the Field Office Manager (DOE M 426.1-1A, Chapter III, Section 1, 2.a (1)).

Approach

Record Review: Review oversight documentation, such as SSO assessment reports, SSO walk throughs, correspondence, SSO activity records or logs, corrective action documents, etc. to establish that SSO personnel are performing required oversight. Review contract requirements and their flow down through the contract to the safety systems and safety management programs to establish the effectiveness of SSO personnel oversight that the contractor complies with all requirements relative to safety systems and programs. Review a sample of the safety system health reports, safety system test reports, safety system investigation reports, safety system root cause analyses, etc. to determine the effectiveness of SSO personnel knowledge and familiarity with this information.

Interviews: Interview SSO personnel to determine their knowledge of and familiarity with assigned safety systems and safety management programs, and the reports that the contractor may generate in relation to the systems and programs.

Field Observation: Observe SSO personnel walk downs and other activities in the field to establish the level of SSO personnel knowledge and familiarity of safety systems.